

Work Order ID 147614***147614***

Page 1

Wednesday, June 08, 2016 2:30:25 PM

Item ID: D3769-5 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Tube
Start Date: 6/3/2016 Start Qty: 2.00 *?
Required Date: 6/8/2016 Req'd Qty: 2.00 *?
Reference: Cust Item ID:
Customer:

Approvals: Process Plan: MLS Date: **JUN 13 2016** Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3769	Rev A

100

0.00

100

Small Fab

Small Fab

Memo

0.08

Small Fab

1-cut tube to length as per dwg D37692-drill holes thru on both ends of tube as per dwg D3769 using DT9411 Jig3- deburr

2 FF OCT 26 2016

110

0.00

110

QC5- Inspect part completeness to step on W/O

QC

Memo

0.01

Quality Control

(2) DAS
38
9-88
OCT 26 2016

120

0.00

120

Chemical Conversion Coat per QSI005 4.1

HandFinish

Memo

0.02

Hand Finishing

(x2) 8 2016/10/27
BEB

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Work Order ID 147614

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147614

Page 2

Item ID: D3769-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Tube

Start Date: 6/3/2016 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/8/2016 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC3- Inspect Part Finish

0.00

130

QC

Memo

0.00

Quality Control

(2)

DAS
38
9-89

OCT 27 2016

140

Identify as per dwg & Stock Location: 51254

0.00

140

Packaging

Memo

0.00

Packaging

2

NOV 01 2016

DAS
6
9-89

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.03

Quality Control

DAS
21
9-89

NOV 02 2016

DAS
21
9-89

NOV 01 2016



DART
AEROSPACE

QA Closed: _____ Date: _____

Work Order update only

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev I

Picklist Print

Wednesday, June 08, 2016 2:30:25 PM

Page 1

Work Order ID: 147614

147614

Parent Item: D3769-5

D3769-5

Parent Item Name: Tube

Start Date: 6/3/2016

Required Date: 6/8/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 08-06-18 rev.A as per dwg DD verified by:EC
IPP Rev:B 08-08-27 Drilling Tooling Added JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M6061T6T1.000W065

Purchased

No

100

f

34.2435

1.6742

3.524632

M6061T6T1 000W065

FF

OCT 26 2016

6061T6 RD TUBE 1.00 x .065w

Location

Loc Qty

Loc Code

GA002

6.95763

M126183

0.17416

M134528

6.78347

MAT

27.285853

M132577

27.285853

3.524632

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐		☐	Pressure/Forced	☐	Temperature/Cure
Design ☐	☐	Operator ☐		☐	Bending	☐	Set-up
Doc/Data ☐	☐	Offset/Setup ☐		☐	Centre Not Concentric	☐	BOM/Route
Equip/Tooling ☐	☐	Supplier ☐		☐	Cracks	☐	Broken/Damage/Defect
Handling/Pre ☐	☐	Training ☐		☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified
Material ☐	☐	Use for Testing ☐		☐	Cuffs	☐	Contamination
Internal Transport ☐	☐	Poor Information ☐		☐	Crushing	☐	Countersink
Tribal Knowledge ☐	☐	Rushing ☐		☐	Heat Treat	☐	Cut Too Short
LOA ☐	☐	Product Improvement ☐		☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear
Substation ☐	☐	Process Improvement ☐		☐	Marks/Chatter	☐	Drill Holes
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER :			
Misidentified ☐	☐	Past Due ☐					

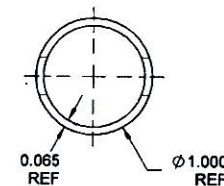
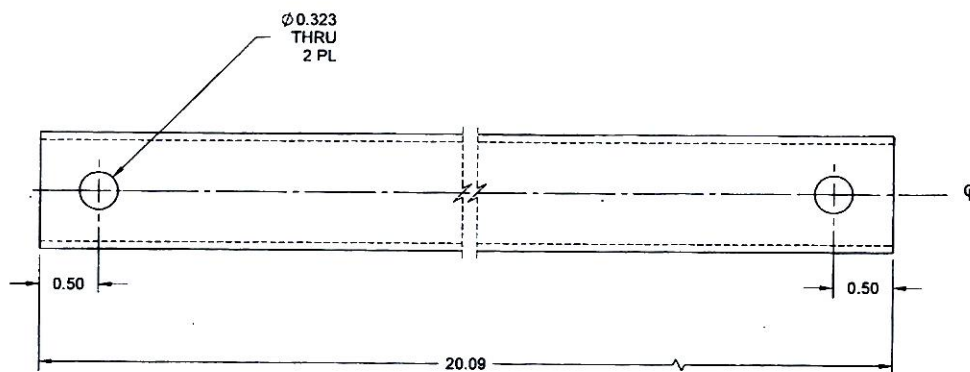
INSPECTION SHEET

DAS
30

9-89Date:Revised by

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 147614

MLJ
16-06-13



D3769-5 TUBE

RELEASED
08.06.13

DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED	<i>[Signature]</i>	DRAWING NO. D3769	REV. A
MFG. APPR.	<i>[Signature]</i>	TITLE	SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TUBE	SCALE
DE APPR.	<i>[Signature]</i>		NTS
DATE	08.06.04	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION FROM DART AEROSPACE LTD.	